REMARKS

Claims 1-11 and 23 are all the claims presently pending in the application. Claims 1-11 and 23 have been amended to more particularly define the invention. Claims 12-22 are canceled.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-23 stand rejected under 35 U.S.C. § 101 as being allegedly directed to non-statutory subject matter.

Claims 1-7, 9, 10, 12-18, 20, 21, and 23 stand rejected under 35 U.S.C. § 102 (e) as being anticipated by Schwartz et al., (U.S. Patent No. 6,101,276).

These rejections are respectfully traversed in the following discussion.

I.   THE CLAIMED INVENTION

The claimed invention, as exemplified by claim 1, is directed to an image decoding apparatus that divides a coded image data into a plurality of code blocks of a plurality of layers based on a control parameter, and carries out a first image decoding process, a second image decoding process, and a third image decoding process to each of said plurality of code blocks, including an analyzer which is adapted to calculate a first process quantity for said second image decoding process and said third image decoding process within a process time that is taken for a decoding process to said coded image data, and calculate a second process quantity for said first image decoding process based on said first process quantity. Said first

image decoding process includes an arithmetic decoding process and a bit modeling decoding process, said second image decoding process includes an inverse quantization process, and said third image decoding process includes an inverse wavelet conversion process. The image decoding apparatus also includes an image decoder adapted to obtain a decoded image by executing said second image decoding process and said third image decoding process to the coded image data after said first image decoding process based on said second process quantity.

In conventional image decoding apparatuses, it is difficult to control the process time optimization of the whole system, and to suppress the degradation of image quality. (See Application at page 5, lines 6-16).

The claimed invention, on the other hand, may possible to carry out the control of process time optimization of the whole system so that the degradation of image quality can be suppressed.

II.   THE 35 USC §101 REJECTION

Claims 1-23 stands rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter.

With regard to rejection of claims 1-11, the claims have been amended in such a way as to overcome the rejection.

With regard to the rejection of claims 12-22, the cancellation of the claims renders the rejection moot.

With regard to the rejection of claim 23, the claim has been amended to overcome this rejection, as suggested by the Examiner in a telephone conversation conducted on April 3, 2009.

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III.   THE PRIOR ART REFERENCE

The Examiner alleges that Schwartz teaches the claimed invention recited by claims 1-7, 9, 10, 12-18, 20, 21, and 23. Applicant submits, however, that there are elements of the claimed invention which are neither taught nor suggested by Schwartz.

Claim 1, from which claims 2-6 depend, recites:

"*An image decoding apparatus that divides a coded image data into a plurality of code blocks of a plurality of layers based on a control parameter, and carries out a first image decoding process, a second image decoding process, and a third image decoding process to each of said plurality of code blocks, comprising:*
an analyzer adapted to calculate a first process quantity for said second image decoding process and said third image decoding process within a process time that is taken for a decoding process to said coded image data, and calculate a second process quantity for said first image decoding process based on said first process quantity, wherein said first image decoding process comprises an arithmetic decoding process and a bit modeling decoding process, said second image decoding process comprising an inverse quantization process, and said third image decoding process comprising an inverse wavelet conversion process; and
an image decoder adapted to obtain a decoded image by executing said second image decoding process and said third image decoding process to the coded image data after said first image decoding process based on said second process quantity."

Independent claim 7, from which claims 8-11 depend, recites similar features as those recited by claim 1 above.

In contrast, the Examiner has not alleged, and Schwartz fails to teach or suggest, "*An image decoding apparatus that divides a coded image data into a plurality of code blocks of a plurality of layers based on a control parameter, and carries out a first image decoding process, a second image decoding process, and a third image decoding process to each of said*

plurality of code blocks, comprising: an analyzer adapted to calculate a first process quantity

for said second image decoding process and said third image decoding process within a

process time that is taken for a decoding process to said coded image data, and calculate a

second process quantity for said first image decoding process based on said first process

quantity, wherein said first image decoding process comprises an arithmetic decoding process

and a bit modeling decoding process, said second image decoding process comprising an

inverse quantization process, and said third image decoding process comprising an inverse

wavelet conversion process; and an image decoder adapted to obtain a decoded image by

executing said second image decoding process and said third image decoding process to the

coded image data after said first image decoding process based on said second process

quantity.

Applicant also point out that MPEP 2173.05 (g) states that a functional limitation must

be evaluated and considered, just like any other limitation of the claim, for the pertinent art in

the context in which it is used. Here, the functional limitations of claim 1 serve to further

define the structures and the context in which they are used in combination. Such functional

descriptions are important in describing the image decoding apparatus. Case law has clearly

held that a machine executing a specific task constitutes a unique machine.

Therefore, it is respectfully requested that the Examiner re-evaluate and reconsider all

the claimed features of claim 1.

Also, Claim 23 recites, inter-alia, "*determining a process quantity of a coded image*

data in said plurality of image decoding processes within a unit process time based on a

parameter for said coded image data."

Here, the Examiner attempts to equate Schwartz's context model 1430, memory 1431,

and logic 1432 as the analyzer of the claimed invention, and relies on column 21, lines 42-46

and column 23, lines 11-40 to allege that Schwartz teaches or suggests, "*determining a process quantity of a coded image data in said plurality of image decoding processes within a unit process time based on a parameter for said coded image data.*" (Office Action, page 10, paragraph 7, lines 5-15). However, Schwartz fails to teach or suggest that Schwartz's context model 1430, memory 1431, and logic 1432 indeed are capable of "*determining a process quantity of a coded image data in said plurality of image decoding processes within a unit process time based on a parameter for said coded image data.*" Indeed, column 21, lines 42-46 of Schwartz merely teaches that context model 1430 provides a context to a memory 1431 where a probability state is determined. The probability state is converted with logic 1432 to a "Qe_value." The Examiner has not explained how Schwartz's teaching of providing a context, determining a probability state, and converting the probability state to a Qe_value has anything to do with the claimed features, "*determining a process quantity of a coded image data in said plurality of image decoding processes within a unit process time based on a parameter for said coded image data.*" Schwartz also fails to teach or suggest that the context, the probability state, or the Qe_value are "*based on a parameter for said coded image data.*"

Also, column 23, lines 11-40 refers to a different embodiment of multi-bit decoding after a more probable symbol decision (MPS) has been determined at the arithmetic coder 1433 (See column 23, line 13), alleged by the Examiner as the image decoder of the claimed invention. (Office Action, page 8, line 6). Therefore, multi-bit decoding does not pertain to the steps performed by the context model 1430, memory 1431, and logic 1432, which by necessarily have to be done before the MPS is determined at the arithmetic coder 1433, and fails to teach or suggest, *determining a process quantity of a coded image data in said plurality of image decoding processes within a unit process time based on a parameter for said coded image data.*

The Examiner has not explained how Schwartz's teachings correspond to the above

features of the claimed invention.

In reviewing the anticipation standard, the Federal Circuit has stated "to anticipate,

every element and limitation of the claimed invention must be found in a single prior art

reference, arranged as in the claim. "*Brown v. 3M,* F.3d 1349, 1351, 60 USPQ2d 1375 (Fed.

Cir. 2001), *cert. denied,* 122 S. Ct. 1436 (2002) (emphasis added). Additionally, other court

precedent clarifies the requirement for anticipation, stating that "the reference...must clearly

and unequivocally disclose the claimed compound or direct those skilled in the art to the

compound without any need for picking, choosing, and combining various disclosures not

directly related to each other by the teachings of the cited reference." *In re Arkley,* 455 F.2d

586, 587, 172 USPQ 524 (CCPA 1972); *see also Sandisk Corp. v. Lexar Media, Inc.,* 91 F.

Supp. 2d 1327, 1336 (N.D. Calif. 2000)(stating that "[u]nless all the elements are found in a

single piece of prior art in exactly the same situation and united the same way to perform the

identical function, there is no anticipation.") and *Aero Industries Inc. v. John Donovan*

Enterprises-Florida Inc., 53 USPQ2d 1547, 1555 (S.D. Ind. 1999)(stating that "[n]ot only

must a prior patent or publication contain all of the claimed elements of the patent claim being

challenged, but they 'must be arranged as in the patented device'").

This standard for anticipation is also set forth in MPEP § 2131, which states that "the

identical invention must be shown in as much detail as is contained in the ...claim." Further,

although the same terminology need not be used, "the element must be arranged as required

by the claim."

Here, the Examiner improperly picked and chose different and unrelated sections of

Schwartz to arrive at the claimed invention, without explaining how the sections are even

related to each other.

Therefore, the Examiner has failed to satisfy his burden to prove that Schwartz teaches

or suggests all the features in the claimed invention.

Since there are elements of the claimed invention that are not taught or suggested by

Schwartz, the Examiner is respectfully requested to reconsider and withdraw this rejection.

The Applicant also points out that the Examiner has not applied any references to

reject claims 8 and 11. Therefore the Applicant asserts that these claims are allowable.

IV.   FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-11 and 23, all the claims

presently pending in the application, are patentably distinct over the prior art of record and are

in condition for allowance.   The Examiner is respectfully requested to pass the above

application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance,

the Examiner is requested to contact the undersigned at the local telephone number listed

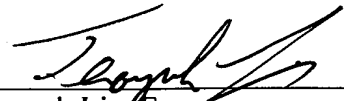below to discuss any other changes deemed necessary in a <u>telephonic or personal interview</u>.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit

any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: _5/2⁊/0⁊_

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